# A Solution in Search of a Problem: Leap and SouthernLINC

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## I. Introduction and Executive Summary

1. My name is Gregory L. Rosston. I am the Deputy Director of the Stanford Institute for Economic Policy Research. I previously submitted a report in this proceeding explaining how the Commission's conclusion that the CMRS market is competitive eliminates any need for a new roaming rule.[1] That report discusses my background more fully.

2. Two filings, one on behalf of Leap Wireless by the ERS Group and another on behalf of SouthernLINC by R. Preston McAfee, agree with the basic premise of my report and also agree with the FCC – the CMRS market is competitive.[2] However, ERS/McAfee create an artificial "wholesale market" in which the only "consumers" are other service providers, not end-user customers. While they acknowledge the highly competitive nature of the CMRS market, they argue there is little competition

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[1] See Sprint Nextel Comments, WT Docket No. 05-265 (Nov. 28, 2004), attaching Gregory L. Rosston, "An Economic Analysis of How Competition Has Reduced High Roaming Charges" (Nov. 2005).

[2] The ERS and McAfee reports are very similar, including the frequent use of identical language, so I will refer to them throughout this report as ERS/McAfee unless I am providing specific cites.

in "wholesale markets." Based on this assertion and a highly stylized theoretical model that completely ignores their earlier concession that the retail market is competitive with multiple facilities-based providers in each area, they propose that the Commission should regulate roaming prices one carrier charges another.

3. As the FCC has stated, and as I concurred in my report, any competition analysis should focus on harm to *consumers*. ERS/McAfee focus on harm to individual *competitors* and discuss harm to consumers only in a cursory and hypothetical way; they provide no evidence at all that the absence of a roaming rule has harmed consumers. Their omission is not surprising because the marketplace evidence (described in the FCC Competition Reports and in my initial report in this proceeding) shows that consumers have benefited greatly from the vigorous competition in the CMRS marketplace without a roaming rule. Prices continue to fall while the number of subscribers, capital investment and network coverage continue to increase.

4. Vigorous retail market competition, including among several different facilities-based providers, protects consumers from negative impacts of some firms' inability to access a limited amount of specific wholesale inputs. No evidence supports claims that consumers have been harmed by the lack of a roaming rule.

5. Although the facts of the competitive market contradict their model and underlying hypothesis, ERS/McAfee propose a new regulation: a mandate that prices carriers charge each other not exceed the lowest prevailing retail rate. Almost no analysis accompanies this sweeping proposal, which appears simply to be a way to get low cost (or even free) access to competitors' networks without any expenditure. Indeed,

this proposed regulation would turn competition policy on its head and create perverse incentives that could severely hamper wireless competition.

6. The proposed regulation would simultaneously reduce incentives to invest and reduce price competition, both of which would harm, not help, consumers. The regulation would reduce incentives to invest since new facilities would immediately become available to any carrier at a very low price. It would blunt incentives to lower retail prices because retail price reductions would translate into lower roaming prices to competitors. These incentives would have stark implications. For example, unlimited flat-rate plans could not exist since such a plan would drive the mandatory roaming rate to zero. Under its own proposal, Leap would be forced to offer roaming services to Sprint and any other carrier for less than $0.001 (one-tenth of a penny) per minute given its $35 unlimited calling plan.[3] New data plans would have the same problem. A carrier offering an unlimited data plan would be forced to offer other carriers free access to the data network, severely diminishing other carriers' incentives to invest and build their own data networks to compete.

7. Antitrust law, recognizing these potential problems, requires facility sharing only in a case of a bottleneck "essential facility" and even in those cases access is not always mandated or in the public interest. None of the conditions necessary for concluding that an essential facility exists or that mandated access is in the public interest is present in the competitive CMRS market.

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[3] "Unlimited Classic" is advertised for $35 per month at http://www.mycricket.com/promo/?promoCode=SPRAOL05, visited 1/03/2006.

8. The remainder of my report discusses these issues in detail: Section II explains why the Commission was correct in using a CMRS market for its public interest analysis; Section III discusses how the proposed rule ignores antitrust precedent intended to protect consumers; Section IV provides a few examples of how the proposed rules would harm rather than help consumers because of the perverse incentives they would create; Section V discusses the ERS Group's theoretical model and shows why several of the critical assumptions are inapplicable to the wireless marketplace and that in general the model is of limited usefulness in this proceeding; and Section VI concludes.

## II. The Relevant Market is CMRS

### *A. Focus on consumers, not competitors*

9. The FCC frequently notes that consumer welfare, not the welfare of competitors, should be the focus of any public interest analysis.[4] That is the correct standard. As ERS/McAfee acknowledge in their filings, consumers enjoy a robustly competitive market for CMRS services because of the number of different facilities-based providers and MVNOs.[5] The Commission's annual CMRS Competition Reports and my report in this proceeding show that such competition benefits consumers: prices have fallen dramatically, firms have rolled out an array of new services, carriers have expanded their networks and coverage, and additional facilities-based networks in

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[4] For citations, see Sprint Nextel Comments p-12 n.46 and p-16 n.63.

[5] McAfee Report, p-2, ERS Group Report, p-4.

new areas, including in rural areas, have intensified competition to the benefit of consumers.

10. In the face of this strong market performance, ERS/McAfee do not show any evidence of harm to consumers. Instead, they argue that regional carriers could be foreclosed from roaming agreements, but make no attempt to demonstrate that such foreclosure in this market would translate into consumer harm. With vigorous competition for retail service among CMRS providers, even foreclosure of wholesale roaming services would be unlikely to harm consumers.[6] And there are a variety of reasons why foreclosure to *competitors* in a competitive market could help consumers by providing incentives for firms to invest and innovate.

11. The vigorous competition among CMRS providers at the retail level protects consumers from harm that might arise from high pricing for wholesale roaming services. If any firm sets roaming prices at a level that is too high, consumers have the option of switching to one of the other competitive firms that does not charge high roaming rates. Because of this, firms that charge their own customers high roaming rates (either because they set a high price for their own facilities or because they have

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[6] McAfee appears to agree with the idea that competitive retail markets protect consumers, "The fact that wholesale markets for roaming services may not be at all competitive for many technologies in many regions does not always imply there is any need for regulatory intervention if the retail market is highly competitive. Limited competition in wholesale markets may not limit competition in downstream retail markets when there are many technologies with similar capabilities, and control of the networks is dispersed across a number of firms." McAfee Report, p-14. To get around this contradiction in his argument, he ignores the competition in the retail market (and his statement 12 pages earlier "Competition for *retail* CMRS services appears vigorous" (McAfee, p-2, emphasis in original)). Ultimately, if the Commission were to accept his logic and argument, it would have to reject its own conclusions in approving the AT&T/Wireless Cingular merger, the Sprint/Nextel merger, and its most recent CMRS Competition Report that the retail market is competitive. However, the McAfee report provides no basis for such a rejection other than the statement that there are "about 4.5 facilities-based providers in the 50 largest BTAs." This information did not change since the FCC approved the mergers or wrote its Competition Report and thus provides no basis for the FCC to change its conclusions.

a high price roaming offer from another carrier) will lose customers who care a lot about roaming relative to the other features of service. The ability of consumers to switch to competitive offerings will insure those who care about roaming are not harmed by foreclosure when there are competitive alternatives. The FCC has recognized this very point:

> "We believe that an overall disciplinary force in the context of the intercarrier market for roaming services is that customers of various firms always have the option to switch to firms employing other air interfaces. In other words, if any mobile telephony consumers -- regardless of whether they are on GSM, TDMA, or analog-only plans -- were to find that the roaming aspects of their wireless service plans became less favorable (whether in terms of price or in terms of coverage) as a result of this merger, they would always have the option not only to upgrade to a GSM plan (in the case of TDMA or analog customers), but to switch to a CDMA-based carrier altogether. Thus, the availability of service from Verizon Wireless, Sprint, ALLTEL, or smaller CDMA-based carriers that comes with favorable roaming arrangements should also act to constrain Cingular's behavior in this regard." AT&T Wireless/ Cingular Merger Order, 19 FCC Rcd 21522, 21591 ¶ 180 (2004).

12. On the other side, firms in competitive markets must be allowed to realize the fruits of their investment and risk. It is for this reason that firms in competitive markets are generally not required to aid their competitors. Without such protection, competitive firms would have little incentive to take new risks. This is standard throughout the economy.

13. A *consumer*-oriented focus for the analysis leads directly to the conclusion that the appropriate relevant market is the retail market. Focusing on consumers is especially important because of the number of different facilities-based providers who also operate in the retail market. Analyzing a wholesale market may make sense if one wants to protect particular firms, but the FCC should protect consumers, not competitors.

*B. There is no separate wholesale roaming market*

14. McAfee justifies a separate wholesale market "because neither regional operators nor their subscribers have *any* ability to substitute."[7] This is wrong on both counts: carriers have numerous options to provide roaming service and subscribers have numerous competitive options.

15. Carriers have a number of options to substitute: they can expand their own networks through investment; they can form roaming consortia/joint ventures with other carriers; they can focus on local coverage and landline substitution; they have opportunities within each technology; they can change technologies; they can provide their customers with multi-mode handsets like Sprint and other carriers did to increase the number of potential roaming partners and facilitate roaming for their customers. All of the large nationwide carriers have discarded old wireless technology and invested in new network technology to improve service to their customers and compete more vigorously in the marketplace. They have also all made investments in handsets to facilitate roaming for their customers. Not only are these options available, but carriers have invested to take advantage of these options when faced with competitive choices.

16. More importantly for the market definition analysis, "their subscribers" have the "ability to substitute." Consumers can change service providers and technology; they exercise this choice freely and frequently in the competitive market. If McAfee's statement were true, churn rates would not be nearly as high as they are. CTIA

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[7] McAfee Report, p-7. (emphasis added).

reports a monthly churn rate of 2.36 percent.[8] In other words, about one quarter of customers change service each year. Subscribers who do not "have any ability to substitute" could not change service so frequently. The FCC agrees with this assessment: "Consumers have contributed to pressures for carriers to compete on price and other terms and conditions of service by freely switching providers in response to perceived differences in the cost and quality of service."[9]

17. By using a market definition that is competitor-focused, not consumer-focused, ERS/McAfee come to a conclusion that is hard to reconcile with the continued drop in prices and increases in quantity and investment. ERS/McAfee decry the increasing CMRS concentration and the concentration of the so-called wholesale markets. Table 1 of the ERS report shows concentration increasing from 1999 to 2000, leveling off, and then increasing in 2004. Such simplistic measures of market performance are routinely rejected as determinative of any antitrust claim – much more analysis is required. In order to evaluate whether any harm has resulted from the increased concentration reported in their table, one should look at the path of prices over the same time period. Instead of increasing concentration leading to higher prices as one might expect from the intimations in the two reports, prices have dropped substantially over the same time period.[10] The experience over the past 10 years of CMRS competition (prices dropping by about 80 percent and subscriptions increasing

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[8] CTIA'S Wireless Industry Indices, Semi-Annual Data Survey Results, Year-end 2004 Results, Released June 2005, p-53.

[9] AT&T Wireless/Cingular Merger Order, WT Docket No. 04-70, 19 FCC Rcd 21522, 21555 ¶ 66 (2004).

[10] It is possible that one could argue that absent an increase in concentration, prices would have dropped more rapidly. Neither report makes this argument nor provides any evidence of this.

by 725 percent)[11] confirms the benefits of competition; it is not supportive of the ERS/McAfee implicit assertion of harm from increased concentration.

18. Because both carriers and customers have options to substitute, there is no separate wholesale market in this case – the appropriate relevant market is retail CMRS service.

### *C. Wholesale markets are relevant only to the extent they affect retail markets*

19. Where active wholesale takes place, however, sometimes retail prices are lower than wholesale prices, even in very competitive markets. Consider long-distance telephone service. For several years, consumers have been able to purchase unlimited long-distance service on their landline telephones. Their carriers, however, generally must pay a positive per-minute origination and termination fees (access charges) on each call. Some carriers purchase wholesale minutes from other carriers and pay a positive per minute price while the supplier also sells minutes directly to consumers at a marginal retail price of zero (and a very low average price).

20. Banking automated teller machine (ATM) networks provide another example. Generally, banks do not charge their own customers to use their own ATMs, yet they charge other banks' customers for such use. Some banks and financial institutions, however, will reimburse that fee to their customers.[12] In those cases, the bank pays a

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[11] For more detail on these numbers and additional evidence, see my first report in this proceeding and the various FCC CMRS Competition Reports.

[12] In other cases, some banks add an additional charge if their customers use another bank's ATM.

positive “wholesale” price for using the ATM network, while the host ATM bank charges its customers a retail fee of zero.

21. The Commission’s pricing decisions regarding unbundled network elements (UNEs) provide a third example. The marginal cost of usage of the high frequency portion of an unbundled loop is zero or close to zero when the loop is already in place and providing service to customers. Despite not finding that high-speed Internet access is competitive in the same way that the Commission has found wireless to be, the Commission decided not to compel incumbent LECs to sell the high frequency portion at marginal cost, nor even at the retail price to consumers. Instead, the Commission found that consumers would benefit from an unregulated price because of the investment incentives, and they would be protected by competition. Given the competitive nature of the wireless marketplace – one the Commission has found to be “robustly competitive” – the decision here should be much easier.

22. These are just three examples where the retail price can be lower than the wholesale price without government intervention being necessary. But the more general conclusion to draw from these examples is that the simplistic visceral appeal of “hobbling” competitors by refusing to offer them cheap access is not necessarily anticompetitive – a large number of other factors need to be present to draw that conclusion, and they are not in the CMRS case.

## III. Antitrust Policy is Clear – in a Competitive Market, There is No "Duty to Deal"

### *A. Application of the essential facilities doctrine shows no need for a mandated rule*

23. Leap/ERS and SouthernLINC/McAfee assume implicitly in their filings that carriers have an obligation to assist and serve their competitors despite the plethora of wireless options available to wireless consumers. As the Supreme Court noted in its recent *Trinko* decision, as a general matter there is "no duty to aid competitors."

> "Enforced sharing also requires antitrust courts to act as central planners, identifying the proper price, quantity, and other terms of dealing — a role for which they are ill-suited. Moreover, compelling negotiation between competitors may facilitate the supreme evil of antitrust: collusion. Thus, as a general matter, the Sherman Act 'does not restrict the long recognized right of [a] trader or manufacturer engaged in an entirely private business, freely to exercise his own independent discretion as to parties with whom he will deal.'" *Verizon* v. *Trinko,* 540 U.S. 398, 407, 411 (2004)(internal citations omitted).

24. When there is no monopoly and when there is no "essential facility," it makes no antitrust or economic sense to order the opening of facilities to competitors so they can avoid investing on their own. As Justice Breyer has stated,

> "Moreover, a sharing requirement may diminish the original owner's incentive to keep up or to improve the property by depriving the owner of the fruits of value-creating investment, research, or labor." *AT&T* v. *Iowa Utilities Board*, 525 U.S. 366, 428-29 (1999)(dissenting opinion).

25. The FCC recognized this even when there were only two cellular carriers in each market. Specifically, it held that the public interest would be disserved by giving one cellular licensee the right to resell the services of its competing licensee:

> "[U]nrestricted resale potentially can adversely impact competition in the cellular industry by limiting facilities-based competition. If one carrier were permitted to rely permanently on reselling a competitor's service, there are potential anticompetitive consequences. A permanent resale relationship increases opportunities to engage in joint anticompetitive agreements and to obtain competitively sensitive information. For these reasons, we agree with the DOJ and the majority of the commenters that the current regulations requiring

> unrestricted resale to a fully operational facilities-based carrier do not promote the public interest." Cellular Resale Policies, 7 FCC Rcd 4006, 5007 ¶ 14 (1992).

26. More recently, the FCC has determined that large incumbent LECs, which ordinarily are required to offer UNEs to their competitors, need not share their new fiber-to-the-home loops with their competitors. The FCC noted that relieving ILECs of an obligation to assist competitors "will stimulate facilities-based networks in two ways":

> "First, with the certainty that their fiber optic and packet-based networks will remain free of unbundling requirements, incumbent LECs will have the opportunity to expand their deployment of these networks, enter new lines of business, and reap the rewards of delivering broadband services to the mass market. Thus, we conclude that relieving incumbent LECs from unbundling requirements for these networks will promote investment in, and deployment of, next-generation networks. Second, with the knowledge that incumbent LEC next-generation networks will not be available on an unbundled basis, competitive LECs will need to continue to seek innovative network access options to serve end users and to fully compete against incumbent LECs in the mass market. The end result is that consumers will benefit from this race to build next generation networks and the increased competition in the delivery of broadband services." *Triennial Review Order*, 18 FCC Rcd 16978, 17141-42 ¶ 272 (2003).

The FCC further found that "the entry barriers appear to be largely the same for both incumbent and competitive LECs" and "that both incumbent LECs and competitive LECs are faced with the same issue in their deployment of such loops." *Id.* at 17143 ¶ 275. So too here, all CMRS carriers face the same issue in expanding their network coverage (*e.g.*, acquiring additional spectrum, locating appropriate cell sites and obtaining necessary local government approval).

27. A remedy like a mandated roaming rule and facilities sharing should address a true bottleneck — an otherwise intractable monopoly. In addition, it should also be accompanied by ample evidence that the bottleneck causes competitive disruptions and adversely affects consumer welfare. Finally, the remedy must have a clear

positive benefit for consumer welfare. Such benefits might be a transition to facilities-based competition or facilitating competition in products or services of which the monopolized component is a relatively small part. While this is a high standard, it is the standard in antitrust law for mandating access to an essential facility. The case for mandated roaming fails all three parts of the test: there is no bottleneck monopoly; there is no evidence of adverse effect on consumer welfare; and there is no evidence presented that a roaming rule would benefit consumers.

*B. Other wireless carriers invested in networks while Leap and SouthernLINC did not*

28. Both Leap and Southern have had opportunities to acquire spectrum, enter into arrangements with other carriers and generally use the competitive market to create seamless roaming for themselves. However, neither has undertaken the massive investment and investment risk that the firms like Sprint, Nextel, AT&T, Cingular, Verizon, T-Mobile, Western Wireless and Alltel did.

29. Having analyzed the wireless industry for more than 15 years, I have witnessed deals that Sprint and Nextel entered into to build their networks. I have also watched the strategies undertaken by Leap and SouthernLINC. The contrasts are clear. SouthernLINC relies largely on 800 MHz Industrial/Land transportation and Business channels that it got for free from the FCC because of its position as a utility provider and on spectrum that it bought in the FCC’s SMR auction. Nextel invested billions of dollars to acquire spectrum across the country and build out its network. Southern had similar opportunities, but chose not to invest to expand its own network. Nextel also invested tens of millions of dollars to work with Motorola to develop and

enhance the iDEN system. Southern adopted the same technology after it had been developed, without incurring any of the same investment risk. Now that the iDEN technology is proven and Nextel has spent billions of dollars to build its network across the country, Southern would like the Commission to force Sprint Nextel to allow Southern to use its network at a price lower than that which Sprint Nextel is willing to make it available.

30. Leap initially started Cricket as a competitor to landline telephone service. Leap bought spectrum at the FCC auctions in several cities and developed networks in some of these cities. However, in other cities, it did not build and subsequently sold spectrum to other parties in those cities.[13] Now Leap apparently wants cheap access to other carriers' networks in those same cities where it declined to invest and build. Like Leap, Sprint started without any wireless network eleven years ago. However, since then, Sprint invested and risked tens of billions of dollars at FCC auctions and in network buildout to provide the service it thinks that its customers want. Leap's proposal would allow it to gain mandated access to this network without incurring the same investment or risk.

31. Both Leap and SouthernLINC have a number of ways to expand their network coverage (if they determine that expanded coverage is important) as discussed in paragraph 15 above. Because there are alternatives, and because the market is not a monopoly, the FCC need not even consider the offsetting incentive effects that would

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[13] *See, e.g.,* RCR Wireless News, *Leap, Revol Clump Markets* (Nov. 14, 2005)(Leap sells certain Ohio licenses, covering more than 1.5 million POPs); Communications Daily (Sept. 13, 2005)(Leap sells certain Alaska and Minnesota licenses to Dobson); RCR Wireless News, *Verizon Completes Leap Spectrum Buy* (Aug. 8, 2005)(Leap sells 23 licenses in six states covering 8 million POPs to Verizon Wireless).

be part of a standard essential facilities investigation (and that are missing from the ERS/McAfee analyses).

## IV. The ERS/McAfee Proposed Regulation Creates Perverse Incentives the Could Harm Consumers.

32. A proposed regulation should address a specific market failure, and the regulator should be reasonably sure that the expected benefits of the regulation will exceed the expected costs. ERS/McAfee identify no market failure, yet offer a proposed regulation. Specifically, they believe that no firm should charge more for roaming on its network than its "lowest prevailing retail rate."[14]

33. This price regulation would have perverse unintended consequences, reducing investment incentives and making it more costly for any firm to reduce its prices. The result of such a rule could be a stagnant market with little investment, little innovation, and higher prices – all of which would harm consumers, especially consumers in rural areas.

34. Consider a world with this regulation in place. Carried to its logical extreme, anybody with even a single cell site anywhere could offer nationwide service at a very low per-minute rate. A provider who only has access to a fraction of a MHz of spectrum covering a geographic area with no people or roads could demand roaming privileges on all of the nationwide networks. The provider could then start to sell packages in every major city without any network investment of its own. It would

[14] ERS Group, p-24; McAfee, pp-5 and 16. ERS would use "the average rates nationwide carriers obtain for their retail minutes" when "audited information" is publicly available. ERS Group, p-24.

not be surprising to see entrepreneurs such as Leap and/or Southern take this route and expand greatly their marketing beyond the areas in which they have facilities-based service if such a mandate were implemented.

35. This would be a substantially cheaper way to get nationwide coverage than spending the tens of billions of dollars that the "nationwide" carriers and their affiliates have spent for spectrum, radios, towers, backhaul, switches and other infrastructure to be able to provide high quality service. As a result, if this regulation were adopted, carriers would have reduced incentives to invest, since their competitors would all have access to their new facilities, diminishing any potential returns, and they would not have the need to risk investing themselves since other carriers would bear the risk.

36. Under the current rules, many carriers have made investments in rural areas, bringing rural consumers the same technology and pricing that are available in urban areas. No mandated roaming rule led to this benefit – instead it was the opposite. The need to provide high quality coverage for their own customers at reasonable rates led companies to invest substantially in their own networks and in deals with affiliates and partners to provide extensive coverage in rural areas. Companies have shown that they have an incentive to invest in their own networks in rural areas under the current rules. With a roaming mandate, firms would have a lower incentive to invest in rural areas because they could get access to other carriers' networks at the same low urban rates or, if they were to consider building facilities in rural areas, they would find lower returns. Both considerations would lead firms to be less likely to bring new facilities-based service to rural areas.

37. In addition, such a regulation would reduce incentives to lower retail prices. Every time a carrier reduced its retail price it would also have to offer lower roaming prices to its competitors. As a result, the regulation has the potential to eliminate price competition for consumers. Worse, if carriers were also required to make advanced services available to everyone at a similarly low price, carriers would have lower incentive to innovate with new services.

38. Leap currently offers unlimited voice minutes for $35 per month.[15] That rate yields an average retail price of less than $0.001 per minute using the ERS calculations.[16] Under its proposed rule, Leap would be required to make roaming available nearly free (and long distance for even less given the offer of unlimited long distance for an additional $5).[17] Any carrier thinking about offering a competing package would have to take into consideration the normal effects of its price reductions on retail revenues and profits, but also would realize that it would have to reduce its price for wholesale at the same time.[18] With this rule, firms would be more reluctant to lower prices.

39. The proposed regulation addresses no market failure and would have serious unintended consequences leading to real consumer harm. The Commission should

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[15] http://www.mycricket.com/promo/?promoCode=SPRAOL05 (visited 1/03/2006)

[16] The rate is not truly unlimited since there are 43,200 minutes per month. (60 min/hr. x 24 hrs./day x 30 days/month).

[17] http://www.mycricket.com/promo/?promoCode=SPRAOL05 (visited 1/03/2006)

[18] In ERS' "model" (discussed below), it assumes that roaming usage is insensitive to price. While ERS claims to explain why this assumption is not critical to their results, I could not find such an explanation. Regardless, I would be surprised if roaming minutes were insensitive to price.

reject it and allow the market to continue functioning in the interests of consumers, as it does now instead of creating perverse incentives that can harm consumers.

## V. The ERS Theoretical Model Ignores CMRS Competition

40. ERS Group introduces a simplistic model to support its argument. The highly stylized, purely theoretical model does not provide support for ERS' conclusion for a number of reasons: the model does not conclude which of two pure-strategy equilbria will occur and ignores completely the vast array of mixed-strategy equilibria; the model does not address consumer welfare; the model provides a static rather than dynamic framework and ignores investment and incentive effects; the model explicitly assumes the retail market is a duopoly rather than the competitive market the Commission has found; and the model assumes homogeneity, but its consumer harm argument relies on heterogeneity. All of these assumptions render the model inapplicable to the competitive and dynamic CMRS market.

41. The ERS filing notes that "Economic theory cannot alone identify which equilibrium will result from this type of 'coordination game.'"[19] In addition, its appendix notes that the model ignores "mixed strategy equilibria."[20] As a result, the model not only cannot predict an outcome, but may also actually yield a large number of other possible outcomes.

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[19] ERS Report, p-22.

[20] ERS Appendix, footnote 1.

42. Second, the model does not analyze consumer welfare. Generally in such a simple model, the effects on consumer welfare are ambiguous. In other words, the model, already highly abstract, can offer no solid predictions about how firms are likely to behave in the real world and has nothing to say about how consumers would be affected under any of the theoretical outcomes.

43. Third, the model is a static one-period model with no investment or dynamic actions on the parts of the players. In contrast, the real world has seen substantial investment in networks, coverage, technology and advanced services. To ignore the incentive effects diminishes substantially the value of the model. The model also makes the arbitrary, but critical, assumption "that capacity decisions precede price decisions"[21] and takes this as being appropriate for the CMRS market. However, the reality is that CMRS providers are continuously investing, even after having signed roaming contracts, so this critical assumption violates the reality of the marketplace. The FCC was clear about this fundamental point that contradicts the assumption in the model: "non-trivial increases in the capacity to serve customers can be realized rapidly in established cellular and PCS mobile radio systems."[22]

44. Fourth, the model explicitly assumes duopoly competition between two national providers. However, the results of the model change substantially when there are more competitors. In fact, ERS implicitly agrees with the difference when it concludes (arbitrarily) that regulation should be applied in markets with "*three* or

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[21] ERS Report, p-20.

[22] AT&T/Cingular Merger Order, 19 FCC Rcd 21576 at ¶ 135.

fewer facilities-based carriers."[23] In addition, the model does not take into account that either there is available spectrum in the "away" market (including via secondary markets), or there is likely an additional provider using that spectrum.

## VI. Conclusion

45. Ten years of market evidence confirm that Commission reliance on market forces rather than the adoption of a roaming rule has resulted in tremendous benefits to consumers, including consumers in rural areas. Prices have dropped dramatically. Investment has led to large increases in buildout including substantially increased coverage and competition in rural areas. And consumers have responded by signing up in vast numbers for service.

46. Proponents of new regulation ignore the preponderance of evidence showing the consumer benefits of a robustly competitive CMRS market and instead claim that the market is not working. They show no consumer harm, no essential facility, and propose a rule that might stifle investment and innovation. Without consumer harm, there is no need for a new rule, let alone a rule with such perverse consequences. Without an essential facility, there is no need for mandated access. There is no evidence of consumer harm and there is no evidence of an essential facility. The FCC should reject new rules that would reduce incentives for companies to invest in their networks because such rules will harm consumers.

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[23] ERS Report, p-24, (emphasis added). As an aside, ERS Group provides no rationale or analysis anywhere in the report for the conclusion to apply regulation when there are three carriers.